





### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

AUSIC	PCT RNATIONAL PRELIMINARY EXAMINATION REPORT
anslation inter	(PCT Article 36 and Rule 70)
Applicant's or agent's file reference	FOR EUROPEA CONON See Notification of Transmittal of Intern
IT445WO	Preliminary Examination Report (Form PC1/IPEA
International application No. PCT/DE2002/000904	International filing date (day/month/year)  08 March 2002 (08.03.2002)  Priority date (day/month/year)
	PC) or national classification and IPC
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Applicant	INFINEON TECHNOLOGIES AG
	ary examination report has been prepared by this International Preliminary Examining Authorities to Article 36
••	plicant according to Article 36.
2. This REPORT consists of a	total of 6 sheets, including this cover sheet.
This report is also ac amended and are the	ecompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have
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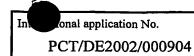
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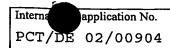
# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

<b>I.</b> :	Basis	of the re	report	
1.	With	regard to	to the elements of the international application:*	
		the inte	nternational application as originally filed	ı
	$\boxtimes$	the des	escription:	ı
	_	pages	s1,4-7,9-19	, as originally filed
		pages	S	, filed with the demand
		pages	s 2,3,3a,8,8a , filed with the letter of	
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	B	pages		, as originally filed
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		pages .		, filed with the demand
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	-	pages		
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	☐ t	the seque	uence listing part of the description:	
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		pages	S	, filed with the demand
		pages .		
	These	the lang the lang	anguage of a translation furnished for the purposes of international search (under Ruanguage of publication of the international application (under Rule 48.3(b)).  Anguage of the translation furnished for the purposes of international preliminary	<b>、</b> "
3.	With prelir	minary ex	rd to any nucleotide and/or amino acid sequence disclosed in the internat examination was carried out on the basis of the sequence listing:	tional application, the international
	H		ained in the international application in written form.	ŀ
	H		together with the international application in computer readable form.	I
	H		shed subsequently to this Authority in written form.	
	H		shed subsequently to this Authority in computer readable form.	
		internat	statement that the subsequently furnished written sequence listing does not national application as filed has been furnished.  Statement that the information recorded in computer readable form is identical.	
	_	been fu	statement that the information recorded in computer readable form is identical furnished.	to the written sequence usung nas
4.		The am	amendments have resulted in the cancellation of:	I
			the description, pages	
			the claims, Nos.	
			the drawings, sheets/fig	
5.		This rep	eport has been established as if (some of) the amendments had not been made, sind the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**	nce they have been considered to go
- 1	Replace in this and 70	is report	t sheets which have been furnished to the receiving Office in response to an invitat ort as "originally filed" and are not annexed to this report since they do not	tion under Article 14 are referred to to contain amendments (Rule 70.16
		•	ment sheet containing such amendments must be referred to under item 1 and annex	and to this upport
•		<b>P</b>	Total Union Committing and a minimum instance of February and an instance and an instance of the instance of t	ea to this report.





IV. Lack of unity of invention
1. In response to the invitation to restrict or pay additional fees the applicant has:
restricted the claims.
paid additional fees.
paid additional fees under protest.
neither restricted nor paid additional fees.
This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
complied with.
not complied with for the following reasons:
<ol> <li>Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:</li> </ol>
all parts.
the parts relating to claims Nos



Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: IV.3

The report relates to two inventions:

1. Claims: 1-18

An optoelectronic module in which the transmission and/or reception element is arranged on a carrier in an OWG coupling part. A control circuit is arranged outside the OWG coupling part parallel to the OWG axis.

2. Claims: 19-25

A plug arrangement with multi-step housing, to which a displaceable protective bracket is attached.

The prior art US5768456 discloses an optoelectronic module in which the transmission and/or reception element is arranged on a carrier on the OWG coupling part. A control circuit is arranged outside the OWG coupling part parallel to the OWG axis.

In contrast thereto, the first group of claims, claims 1-18, has the following special technical feature (PCT Rule 13.2) (first new feature in claim 4):

- the carrier is designed as a leadframe.

The basic problem of interest is the establishment of the electric contact between the carrier and the transmission and/or reception element.

The special technical feature of the second group of claims, claims 19-24, is:

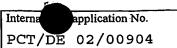
- the protective bracket for a plug arrangement.

The basic problem of interest is that of protecting the OWG end.

The special technical features and the basic problems are

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Supplemental Box (To be used when the space in any of the preceding boxes is not sufficient)	
Continuation of: IV.3	
clearly different, and therefore there	
inventive concept within the meaning of	F PCT Rule 13.1.
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## INTERNATIONAL PREDS MARY EXAMINATION REPORT

No.
904
904

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
	citations and explanations supporting such statement

Statement			
Novelty (N)	Claims	1-22	YES
	Claims		NO NO
Inventive step (IS)	Claims	1-18	YES
·	Claims	19-22	NO
Industrial applicability (IA)	Claims	1-22	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: US-A-5768456 D2: US-A-5960141 D4: US-A-5259052

D5: EP-A-232792 (see search report)

### First invention

Novelty and inventive step

D1 discloses an optoelectronic module with a transmission and/or reception element arranged on a carrier. It has a coupling part which is arranged upstream of the transmission and/or reception element and contains an OWG coupling area. The coupling part is partially filled with adhesive. The control circuit is arranged on a sub-carrier outside the OWG coupling part parallel to the OWG axis. The carrier is arranged perpendicular to the sub-carrier.

In contrast thereto, claim 1 defines a coupling part which surrounds the transmission and/or reception element and is filled with a casting compound such that the transmission and/or reception element is embedded.

The basic **problem** of interest is that of providing a compact optoelectronic module that is protected against environmental influences and in which the electrical circuit and the transmission and/or reception element are spatially separated.

A person skilled in the art cannot derive from D1 a suggestion either as to the embedding of the transmission and/or reception element in a casting compound or to the corresponding geometry of the coupling part. From D2, a person skilled in the art can derive the casting of the entire module, including the circuit; however, this requires a different geometry.

The solution as per the invention is not only compact, but also has the advantage that the heat from the circuit does not affect the casting material. The subject matter of claim 1 cannot therefore be derived in an obvious manner from the prior art and involves an inventive step.

#### Second invention

4. Inventive step (PCT Article 33(3))

D4 discloses a plug arrangement with a plug and separate plug housing. The plug comprises a housing out of which there protrudes an optical fibre. A protective bracket on the plug is pushed back in the longitudinal direction when the plug is introduced into the plug housing. The plug housing forms stops for the plug pin and the protective bracket; the protective bracket is pushed back during plug-in such that it no longer protrudes over the external dimensions of the plug parts.

The subject matter of claim 19 differs therefrom in the steps in the housing and in that it is not the

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plug pin but the housing of the plug which is stopped.

This difference is only a minor design variant:

- The variant does not result in a new function. D4 includes the two essential functions: "longitudinal positioning of the plug in the plug housing" (plug pin 66 hits the stop that is embedded in element 162) and "pushing back the protective bracket" (by the tip of the element 162).
- The variant is known from D5. Said document shows a plug with a foldable protective bracket, wherein the plug in the housing is stopped by a step.

  The plug arrangement according to claim 19 does not therefore involve an inventive step.

The features of dependent claims 20-22 are likewise described in D1 (2 fibres, fixing arms, detent elements) and therefore do not lead to an inventive subject matter.